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October 5, 2016

Ex Parte

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: Amendments to Part 4 of the Commission's Rules Concerning Disruptions to Communications, PS Docket No. 15-80; New Part 4 of the Commission's Rules Concerning Disruptions to Communications, ET Docket No. 04-35; The Proposed Extension of Part 4 of the Commission's Rules Regarding Outage Reporting to Interconnected Voice Over Internet Protocol Service Providers and Broadband Internet Service Providers, PS Docket No. 11-82

Dear Ms. Dortch:

On October 3, 2016, Gregory Romano, Robert Morse, Andis Kalnins (via teleconference), Miguel Carames (via teleconference), Michael Hansen (via teleconference), and Chris Oberg (via teleconference) of Verizon met with the following staff of the Commission's Public Safety and Homeland Security Bureau: Jeffery Goldthorp; Theodore Marcus (via teleconference); Megan Henry; and Joseph Schlingbaum.

The attendees continued their September 28th discussion,¹ in particular the extent to which wireless and wireline broadband services use the same network architecture as services already subject to the Part 4 outage reporting rules, including interconnected VoIP and major transport (OC3-and-higher) services:

- **Wireless.** In wireless LTE networks, outages of cell sites will prevent consumers from accessing both voice (VoLTE) and Internet access service. If new requirements are adopted, extending the Commission's current wireless 900,000 User Minutes threshold to include outages of 4G LTE wireless services as well as 2G data outages would cover these events, not only for cell site outages but for outages of components closer to the network core. Failures of elements closer to the network core, such as the Mobility Management Entity (MME) used to manage signaling and connections between cell sites in the radio access network and the core LTE network, or the gateway facilities used to handle IP packets, are unlikely to result in reportable outages because of the redundancy designed into LTE networks. In the rare cases

¹ See Verizon Ex Parte Letter, PS Docket No. 15-80 (Sept. 30, 2016).

that failures of those components adversely affect consumers, however, the 900,000 User Minutes threshold would already capture those events given the large number of cell sites typically served by a single facility.

- **Wireline.** Verizon's Fios Digital Voice (interconnected VoIP) and broadband Internet access services traverse the same network architecture. Outages of Verizon's wireline VoIP services in many cases would necessarily indicate broadband outages as well. And more generally, a failure of a broadband provider's local distribution network will affect both broadband and interconnected VoIP services used over those facilities. While broadband only customers may not have Verizon-assigned telephone numbers, they have a unique circuit number for identification purposes that could be incorporated into existing NORS reporting methods.
- **Major Facilities.** With respect to broadband transport networks, an outage of an OC3-and-higher facility subject to the Commission's recently updated reporting rule for major facilities will affect voice *and* data services. Verizon thus expects that many outages of facilities used for business data services ("BDS") will be reportable under the new rule for OC3 outages, and while BDS-specific outage reporting is not needed, any rule should be consistent with that OC3-based metric. Verizon's alarm and monitoring systems, though, do not currently track whether (or the degree to which) a particular facility or affected customer relates to a BDS arrangement. For example, while Verizon Wireless's monitoring and reporting systems will generally know when a particular backhaul facility failure results in a reportable 900,000 User Minutes wireless outage, those systems will not necessarily know whether or not a BDS facility is involved. Similarly, the alarm and monitoring systems for Verizon's wireline broadband network will be capable of detecting when an OC3-or-higher facility is out of service, but irrespective of BDS status. Finally, an outage of a major facility that is subject to a state or local government 911 or NG911 service agreement or TSP Levels 1-2 designation would be subject to the Commission's rules for 911 and TSP special facilities; no additional rules are necessary to capture outages of those public safety- and mission critical-oriented facilities, many of which may also incidentally relate to BDS arrangements.

For these reasons, the Commission can gather information on major consumer-affecting broadband-related outages by modifying the existing online system to add broadband-related inputs to the "Services Affected" and related fields in NORS.² In all events, though, any new reporting requirements should apply only to "hard down" outages. IP-enabled networks are designed at the outset with redundancy in mind and with the ability to dynamically re-route packets via available facilities. IP-enabled networks thus do not experience a "partial" outage analogous to those in circuit-switched networks and services. Thus, any such requirement should be limited to circumstances involving network failure in which a failover to a redundant facility or network component does not maintain service for consumers, and would need to be technology and competitively neutral.

² See Federal Communications Commission, *Network Outage Reporting System, Glossary of Fields*, at 11 (Ver.1 July 25, 2016), https://www.fcc.gov/pshs/docs/NORS/NORS_Glossaryv3.docx.

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Finally, Verizon clarifies that it supports modifying the Commission's existing outage reporting regime for services *currently* subject to a three-part system to a two-part system (Notification and Final Report) with at least a 240 minute period to submit the Notification.

This letter is submitted in accordance with Section 1.1206(b) of the Commission's rules. Please contact the undersigned if there are questions concerning this filing.

Sincerely,

A handwritten signature in blue ink, reading "Robert L. Morse". The signature is written in a cursive style with a large, stylized "R" and "M".